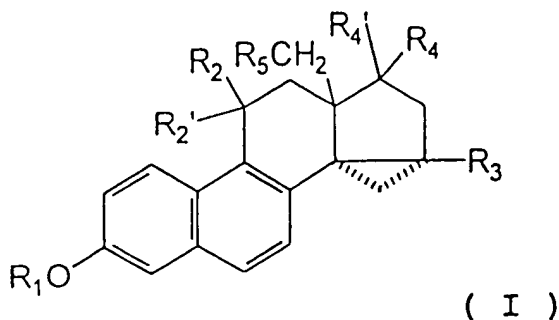


PATENT CLAIMS

1. Equilenin derivatives of general formula I



wherein

R₁ denotes a hydrogen atom, a C₁-C₆-alkyl group, a C₁-C₆-acyl group or a benzoyl group,

R₂ denotes a hydrogen atom and R₂' denotes a hydrogen atom, a fluorine atom, a hydroxyl group or a C₁-C₆-acyloxy group or R₂ and R₂' together denote an oxo group,

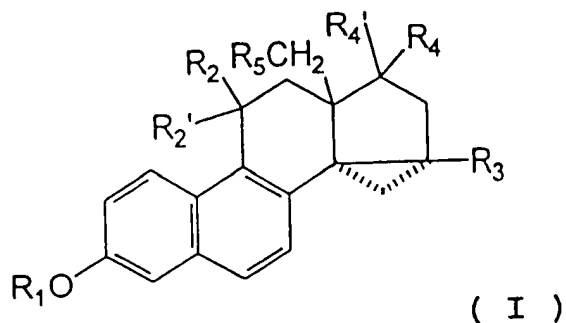
R₃ denotes a hydrogen atom or a methyl group,

R₄ denotes a hydrogen atom and R₄' denotes a hydroxyl group or a C₁-C₁₁-acyloxy group or R₄ and R₄' together denote an oxo group, a methylene group, a halomethylene group or a dihalomethylene group and

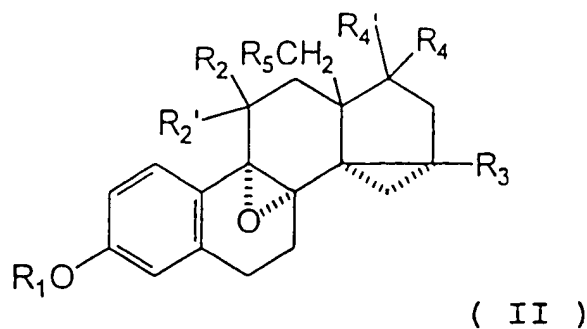
R₅ denotes a hydrogen atom or a methyl group.

2. Equilenin derivatives according to Claim 1, characterized in that R₆ is a hydrogen atom.
3. Equilenin derivatives according to Claim 1, namely
- 1) 14 α ,15 α -methylenestra-1,3,5(10),6,8-pentaene-3,11 β ,17 β -triol,
 - 2) 11 β ,17 β -dihydroxy-14 α ,15 α -methylenestra-1,3,5(10),6,8-pentaen-3-yl benzoate,
 - 3) 11 β ,17 β -dihydroxy-14 α ,15 α -methylenestra-1,3,5(10),6,8-pentaen-3-yl propionate,
 - 4) 3,11 β -dihydroxy-14 α ,15 α -methylenestra-1,3,5(10),6,8-pentaen-17 β -yl decanoate,
 - 5) 3,11 β -dihydroxy-14 α ,15 α -methylenestra-1,3,5(10),6,8-pentaen-17-one,
 - 6) 3-methoxy-14 α ,15 α -methylenestra-1,3,5(10),6,8-pentaen-11 α ,17 β -diyl diacetate,
 - 7) 15 β -methyl-14 α ,15 α -methylenestra-1,3,5(10),6,8-pentaene-3,11 β ,17 β -triol,
 - 8) 11 β -fluoro-14 α ,15 α -methylenestra-1,3,5(10),6,8-pentaene-3,17 β -diol,
 - 9) 3,17 β -dihydroxy-14 α ,15 α -methylene-1,3,5(10),6,8-pentaen-11-one,
 - 10) 3-methoxy-14 α ,15 α -methylenestra-1,3,5(10),6,8-pentaen-11 α ,17 α -diyl diacetate,
 - 11) 3-methoxy-14 α ,15 α -methylene-11-oxoestra-1,3,5(10),6,8-pentaen-17 α -yl acetate,
 - 12) 11 β -hydroxy-17,17-difluoromethylene-14 α ,15 α -methylenestra-1,3,5(10),6,8-pentaen-3-yl benzoate, and
 - 13) 14 α ,15 α -17,17-bis-methylenestra-1,3,5(10),6,8-pentaene-3,11 α -diol.

4. Method for producing equilenin derivatives of the invention of general formula I



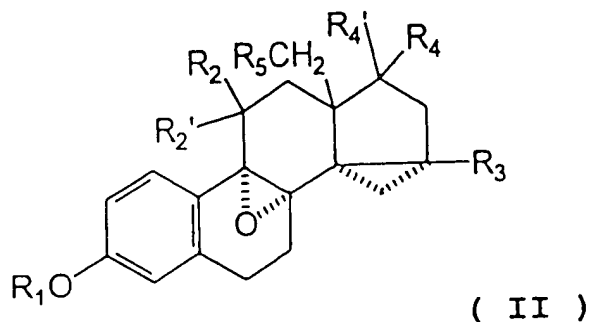
wherein R_1 , R_2 , R_2' , R_3 , R_4 , R_4' and R_6 have the meaning indicated in Claim 1, by subjecting a compound of general formula II



wherein R_1 , R_2 , R_2' , R_3 , R_4 , R_4' and R_6 have the meaning indicated in Claim 1, to reaction with diphosphorus tetraiodide in the presence of pyridine and then converting the compound thus obtained to a compound of general formula I in a manner that in itself is known.

5. Pharmaceutical composition containing at least one compound of general formula I according to Claims 1 to 3, optionally together with pharmaceutically compatible auxiliary agents and carriers.
6. Use of the compounds of general formula I according to Claim 1 [Claims 1 to 3] for geroprophylaxis in men and women.
7. Compounds of general formula I according to Claim 1 [Claims 1 to 3] for use as therapeutically active substances.

8. Cyclopropano steroids of general formula II



wherein R_1 , R_2 , R_2' , R_3 , R_4 , R_4' and R_5 have the meaning indicated in Claim 1

9. Cyclopropano steroids according to Claim 8, namely

- 1) 3-methoxy-14 α ,15 α -methylene-8 α ,9 α -oxidoestra-1,3,5(10)-trien-17 α -ol,
- 2) 3-methoxy-14 α ,15 α -methylene-8 α ,9 α -oxidoestra-1,3,5(10)-trien-17 α -yl acetate,
- 3) 3-methoxy-14 α ,15 α -methylene-8 α ,9 α -oxido-18 α -homoestra-1,3,5(10)-trien-17 α -yl propionate,
- 4) 14 α ,15 α -methylene-8 α ,9 α -oxidoestra-1,3,5(10)-trien-3,17 α -diyl diacetate,
- 5) 3-methoxy-15 β -methyl-14 α ,15 α -methylene-8 α ,9 α -oxidoestra-1,3,5(10)-trien-17 β -ol,
- 6) 11 α -hydroxy-3-methoxy-14 α ,15 α -methylene-8 α ,9 α -oxidoestra-1,3,5(10)-trien-17 α -yl acetate,
- 7) 3-methoxy-14 α ,15 α -methylene-8 α ,9 α -oxidoestra-1,3,5(10)-trien-11 α ,17 α -diyl diacetate and
- 8) 3-methoxy-11 α -hydroxy-8 α ,9 α -oxido-14 α ,15 α -methylenestra-1,3,5(10)-trien-17 β -yl acetate.